

10/698, 648, 2+3

=> d his

registry file
CA/STK search, lactone
In New claims 13-15,

1-19-06, RPT

(FILE 'HOME' ENTERED AT 14:40:46 ON 18 JAN 2006)

FILE 'REGISTRY' ENTERED AT 14:40:54 ON 18 JAN 2006

L1 25 S CYCLOPENTYL METHACRYLATE
L2 16 S CYCLOPENTYL ACRYLATE
L3 167 S ADAMANTYL METHACRYLATE
L4 54 S ADAMANTYL ACRYLATE
L5 0 S ADAMANTYLACRYLATE
L6 1303 S CYCLOHEXYL METHACRYLATE
L7 378 S CYCLOHEXYL ACRYLATE
L8 0 S ETHYLADAMANTYL ACRYLATE
L9 2 S ETHYLADAMANTYL METHACRYLATE
L10 10 S METHYLADAMANTYL METHACRYLATE
L11 1 S (L1 OR L2) AND (L3 OR L4)
L12 6 S (L6 OR L7) AND (L9 OR L10 OR L3 OR L4)
L13 2 S L12 AND 2/NC

FILE 'CAPLUS' ENTERED AT 14:45:38 ON 18 JAN 2006

L14 12 S L13
L15 2 S 581092-39-9/RN

FILE 'REGISTRY' ENTERED AT 14:47:44 ON 18 JAN 2006

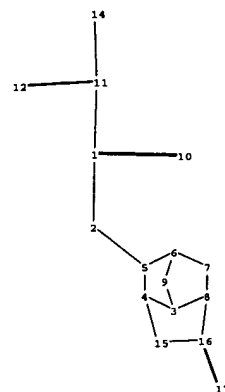
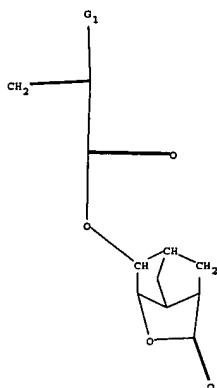
L16 1 S (L1 OR L2) AND (L3 OR L4 OR L9 OR L10)

FILE 'CAPLUS' ENTERED AT 14:49:15 ON 18 JAN 2006

L17 1 S L16

=>

8/10/02



chain nodes :

1 2 10 11 12 14 17

ring nodes :

3 4 5 6 7 8 9 15 16

chain bonds :

1-2 1-10 1-11 2-5 11-12 11-14 16-17

ring bonds :

3-4 3-8 3-9 4-5 4-15 5-6 6-7 6-9 7-8 8-16 15-16

exact/norm bonds :

4-15 8-16 11-14 15-16 16-17

exact bonds :

1-2 1-10 1-11 2-5 3-4 3-8 3-9 4-5 5-6 6-7 6-9 7-8 11-12

G1:H,CH3

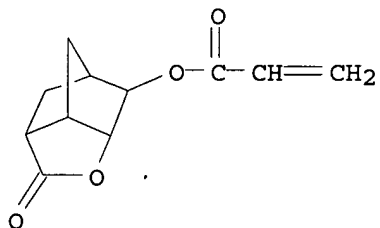
Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:Atom
12:Atom 14:Atom 15:Atom 16:Atom 17:Atom

L4 ANSWER 29 OF 29 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 254900-09-9 REGISTRY
 ED Entered STN: 04 Feb 2000
 CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester,
 polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl
 2-propenoate (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 2-Propenoic acid, hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl
 ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl
 2-methyl-2-propenoate (9CI)
 OTHER NAMES:
 CN **5-Acryloyloxy-2,6-norbornanecarbolactone-2-methyl-2-adamantyl**
methacrylate copolymer
 MF (C15 H22 O2 . C11 H12 O4)x
 CI PMS
 PCT Polyacrylic
 SR CA
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

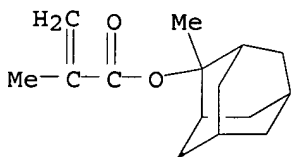
CM 1

CRN 242129-35-7
 CMF C11 H12 O4



CM 2

CRN 177080-67-0
 CMF C15 H22 O2



3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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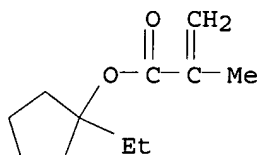
L31 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 854908-07-9 REGISTRY
 ED Entered STN: 13 Jul 2005
 CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with
 hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and
 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA
 INDEX NAME)

OTHER NAMES:

CN **5-Acryloyloxy-2,6-norbornanecarbolactone-1-ethylcyclopentyl
 methacrylate-3-hydroxy-1-adamantyl methacrylate copolymer**
 MF (C₁₄ H₂₀ O₃ . C₁₁ H₁₈ O₂ . C₁₁ H₁₂ O₄)x
 CI PMS
 PCT Polyacrylic
 SR CA
 LC STN Files: CA, CAPLUS

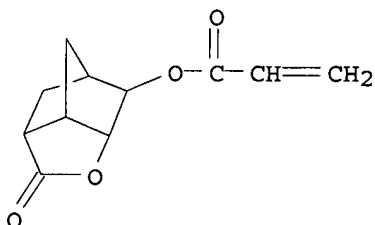
CM 1

CRN 266308-58-1
 CMF C₁₁ H₁₈ O₂



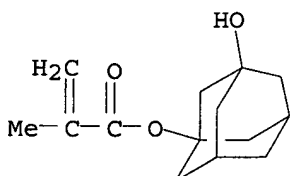
CM 2

CRN 242129-35-7
 CMF C₁₁ H₁₂ O₄



CM 3

CRN 115372-36-6
 CMF C₁₄ H₂₀ O₃



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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L32 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:540707 CAPLUS
 DN 143:86697
 TI Resist polymer solution and process for producing the same
 IN Yamagishi, Takanori; Baba, Hiromitsu
 PA Maruzen Petrochemical Co., Ltd., Japan
 SO PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005057288	A1	20050623	WO 2004-JP18494	20041210
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2005173252	A2	20050630	JP 2003-413627	20031211
	JP 3694692	B2	20050914		
PRAI	JP 2003-413627	A	20031211		

AB A resist polymer solution comprising a resist polymer containing a repeating unit

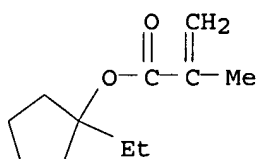
decomposed by the action of an acid so as to be soluble in alkali and a repeating unit having a polar group, the resist polymer dissolved in a solvent for coating film formation, wherein the amount of impurities whose b.p. is not higher than that of the solvent for coating film formation is ≤ 1 mass% based on the resist polymer. Further, there is provided a process for producing a resist polymer solution, comprising the step (1) of re-dissolving a solid matter containing a resist polymer in a solvent for coating film formation (a) and/or a solvent (b) whose b.p. at atmospheric pressure is not higher than that of the solvent (a); and the impurity removing step (2) of distilling off the solvent (b) and/or any excess amount of solvent (a) in vacuum from the re-dissoln. solution obtained in the step (1).

IT **854908-07-9P**, 5-Acryloyloxy-2,6-norbornanecarbolactone-1-ethylcyclopentyl methacrylate-3-hydroxy-1-adamantyl methacrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (resist polymer solution and process for producing the same)

RN 854908-07-9 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

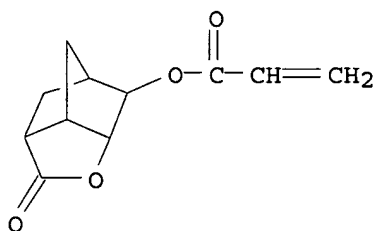
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CRN 242129-35-7

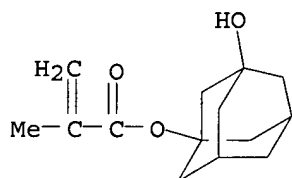
CMF C11 H12 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L15 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:816602 CAPLUS

DN 141:322563

TI Polysiloxane substituted with blocked acidic group and photocurable composition for formation of pattern

IN Takahashi, Hideyuki; Ishizeki, Kenji

PA Asahi Glass Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004277493	A2	20041007	JP 2003-68215	20030313
PRAI	JP 2003-68215		20030313		

AB The polymer has polysiloxane structure (SiR₁R₂O)_nSiR₁R₂R₃ [I; R₁, R₂ = H, (cyclo)alkyl, aryl; R₃ = H, C₁-10 organic group; n = 1-200] and 1-95 weight% of blocked acidic substituents. The polysiloxane may be substituted with fluoroalkyl on ≥2 H. The photocurable composition contains the polysiloxane, another polymer, and a photosensitive acid-generating agent. The another polymer is substituted with blocked acidic groups and is free from structure I and from I whose ≥2 H are replaced by F-substituted C≤20 alkyl. The composition is useful for a precisely patterned mask for preparation of elec. circuits, which shows enhanced ink repellency.

IT 581092-39-9P, Cyclohexyl methacrylate-2-methyl-2-adamantyl methacrylate copolymer

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocurable composition containing polysiloxane substituted with blocked acidic group and)

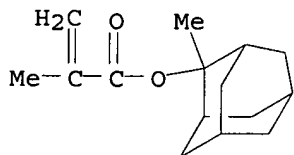
RN 581092-39-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

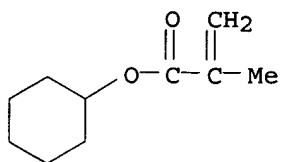
CMF C15 H22 O2



CM 2

CRN 101-43-9

CMF C10 H16 O2



L15 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2003:673878 CAPLUS
 DN 139:188322
 TI Chemically amplified photoresists for ArF excimer laser lithography and polymers therefor
 IN Arita, Yasushi
 PA Sumitomo Bakelite Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 10 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003238629	A2	20030827	JP 2002-41297	20020219
PRAI	JP 2002-41297		20020219		

AB The polymers are a:b:c (molar ratio) cyclohexyl (meth)acrylate-2-methyl-2-adamantyl (meth)acrylate-(meth)acrylic acid derivative copolymers satisfying $a/(a + b + c)$ 0.2-0.8, $b/(a + b + c)$ 0.05-0.5, and $c/(a + b + c)$ 0-0.5, and may satisfy M_n 1000-100,000 and polydispersity >1.0 and ≤ 2.0 . The (meth)acrylic acid derivs. are $RC:CH_2CO_2R'$ [$R' = H, C1-12$ (cyclo)alkyl, alkoxyalkyl, cyclic ether, cyclic ester]. Chemical amplified photoresists containing the polymers show excellent sensitivity to ArF excimer laser light and superior high resolution

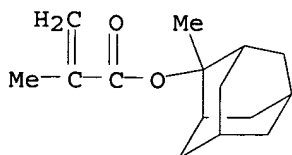
IT **581092-39-9P**, Cyclohexyl methacrylate-2-methyl-2-adamantylmethacrylate copolymer
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (high-sensitivity and -resolution chemical amplified photoresists for ArF excimer laser lithog.)

RN 581092-39-9 CAPLUS
 CN 2-Propenoic acid, 2-methyl-, cyclohexyl ester, polymer with 2-methyltricyclo[3.3.1.1^{3,7}]dec-2-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 177080-67-0

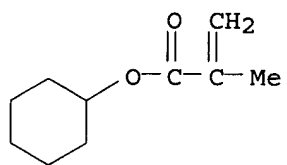
CMF C15 H22 O2



CM 2

CRN 101-43-9

CMF C10 H16 O2



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bib ab hitstr

L17 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2005:540707 CAPLUS
DN 143:86697
TI Resist polymer solution and process for producing the same
IN Yamagishi, Takanori; Baba, Hiromitsu
PA Maruzen Petrochemical Co., Ltd., Japan
SO PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN. CNT 1

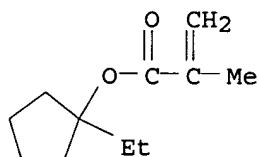
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005057288	A1	20050623	WO 2004-JP18494	20041210
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	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	JP 2005173252	A2	20050630	JP 2003-413627	20031211
	JP 3694692	B2	20050914		
PRAI	JP 2003-413627	A	20031211		
AB	A resist polymer solution comprising a resist polymer containing a repeating unit				

decomposed by the action of an acid so as to be soluble in alkali and a repeating unit having a polar group, the resist polymer dissolved in a solvent for coating film formation, wherein the amount of impurities whose b.p. is not higher than that of the solvent for coating film formation is ≤ 1 mass% based on the resist polymer. Further, there is provided a process for producing a resist polymer solution, comprising the step (1) of re-dissolving a solid matter containing a resist polymer in a solvent for coating film formation (a) and/or a solvent (b) whose b.p. at atmospheric pressure is not higher than that of the solvent (a); and the impurity removing step (2) of distilling off the solvent (b) and/or any excess amount of solvent (a) in vacuum from the re-dissoln. solution obtained in the step (1).

IT 854908-07-9P, 5-Acryloyloxy-2,6-norbornanecarbolactone-1-ethylcyclopentyl methacrylate-3-hydroxy-1-adamantyl methacrylate copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(resist polymer solution and process for producing the same)
RN 854908-07-9 CAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl 2-propenoate and 3-hydroxytricyclo[3.3.1.1^{3,7}]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

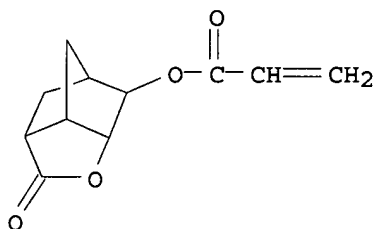
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CMF C11 H18 O2



CM 2

CRN 242129-35-7

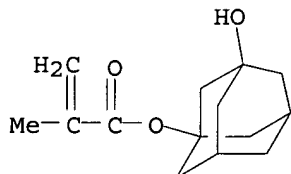
CMF C11 H12 O4



CM 3

CRN 115372-36-6

CMF C14 H20 O3



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 14:40:46 ON 18 JAN 2006)

FILE 'REGISTRY' ENTERED AT 14:40:54 ON 18 JAN 2006

L1	25 S	CYCLOPENTYL METHACRYLATE
L2	16 S	CYCLOPENTYL ACRYLATE
L3	167 S	ADAMANTYL METHACRYLATE
L4	54 S	ADAMANTYL ACRYLATE
L5	0 S	ADAMANTYLACRYLATE
L6	1303 S	CYCLOHEXYL METHACRYLATE
L7	378 S	CYCLOHEXYL ACRYLATE
L8	0 S	ETHYLADAMANTYL ACRYLATE
L9	2 S	ETHYLADAMANTYL METHACRYLATE
L10	10 S	METHYLADAMANTYL METHACRYLATE
L11	1 S	(L1 OR L2) AND (L3 OR L4)
L12	6 S	(L6 OR L7) AND (L9 OR L10 OR L3 OR L4)
L13	2 S	L12 AND 2/NC

FILE 'CAPLUS' ENTERED AT 14:45:38 ON 18 JAN 2006

L14 12 S L13

L15 2 S 581092-39-9/RN

FILE 'REGISTRY' ENTERED AT 14:47:44 ON 18 JAN 2006

L16 1 S (L1 OR L2) AND (L3 OR L4 OR L9 OR L10)

FILE 'CAPLUS' ENTERED AT 14:49:15 ON 18 JAN 2006

L17 1 S L16

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- 10/048, 243, USPAT Text Search
1-23-06, RPA
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 - \$7 adamantyl adj (acrylate or methacrylate)
 - cyclohexylmethacrylate near5 \$7adamantylmethacrylate
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 - Saved
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 - S2: (222) cyclopentyl adj (acrylate or methacrylate)
 - S3: (12) cyclopentylacrylate or cyclopentylmethacrylate
 - S4: (6009) cyclohexyl adj (acrylate or methacrylate)
 - S5: (463) cyclohexylacrylate or cyclohexylmethacrylate
 - S6: (395) \$7adamantyl adj (acrylate or methacrylate)
 - S7: (10) S1 and (S2 or S3)
 - S9: (4) S1 and (S2 or S3) and S6
 - S8: (45) S1 and (S4 or S5) and S6
 - S10: (0) cyclohexyl adj (acrylate or methacrylate) near5 \$7adamantyl adj (acr
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 - S12: (6) cyclohexylmethacrylate near5 \$7adamantylmethacrylate
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 - Queue
 - Trash

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DBs: USPAT

Default operator: OR

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☒ Highlight all hit terms initially

1 and (2 or 3)

	U	1	Document ID	Issue Date	Page	Title	Current OR	Current XRef	Retrieval C	Inventor	S	C	P	3
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- ☐ Drafts
- ☐ Pending
- ☒ Active
 - ☒ L1: (1) "6962766".pn.
 - ☒ L2: (1) "6692897".pn.
 - ☒ L8: (1) "6517993".pn.
 - ☒ L9: (1) "6824956".pn.
 - ☒ L10: (1) "6830866".pn.

- cyclopentylacrylate or cyclopentylmethacrylate)
- \$7 adamantyl adj (acrylate or methacrylate)
- cyclohexylmethacrylate) near5 \$7adamantylmethacrylate)
- cyclohexylmethacrylate) near5 \$7adamantylmethacrylate)

[-] Saved

- S1: (4489) 430/270.1.ccls. or 430/326.ccls. or 430/921.ccls.
- S2: (222) cyclopentyl adj (acrylate or methacrylate)
- S3: (12) cyclopentylacrylate or cyclopentylmethacrylate
- S4: (6009) cyclohexyl adj (acrylate or methacrylate)
- S5: (463) cyclohexylacrylate or cyclohexylmethacrylate
- S6: (395) \$7adamantyl adj (acrylate or methacrylate)
- S7: (10) S1 and (S2 or S3)
- S9: (4) S1 and (S2 or S3) and S6
- S8: (45) S1 and (S4 or S5) and S6
- S10: (0) cyclohexyl adj (acrylate or methacrylate) near5 \$7adamantyl adj (acrylate or methacrylate)
- S11: (0) cyclohexyl adj (acrylate or methacrylate) near10 \$7adamantyl adj (acrylate or methacrylate)
- S12: (6) cyclohexylmethacrylate near5 \$7adamantylmethacrylate

- Favorites
- Tagged (0)
- UDC
- Queue
- Trash

Search [] [] [Browser] [Queue] [Clear]
DBs: USRAT
Default operator: OR

☒ Purge
☒ Highlight all hit terms initial

"6830866".pn.

 BRS form
  IS&R form
  Image
  Text
  HTML

[illegible]